SERVICE MANUAL

DIGITAL CLOCK RADIO

SANYO

RM5008 (U.K.)
RM5008 (EUROPE)
RM5008L (EUROPE)

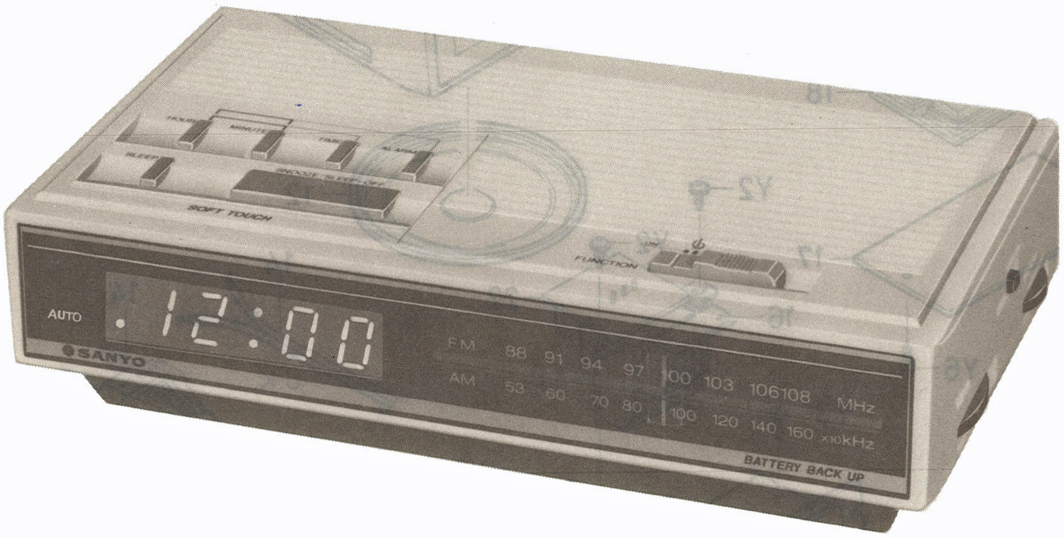

SOFT TOUCH
FUNCTION
AUTO
.12:00
SANYO
FM 88 91 94 97 100 103 106108 MHz
AM 53 60 70 80 100 120 140 160 x10kHz
BATTERY BACK UP

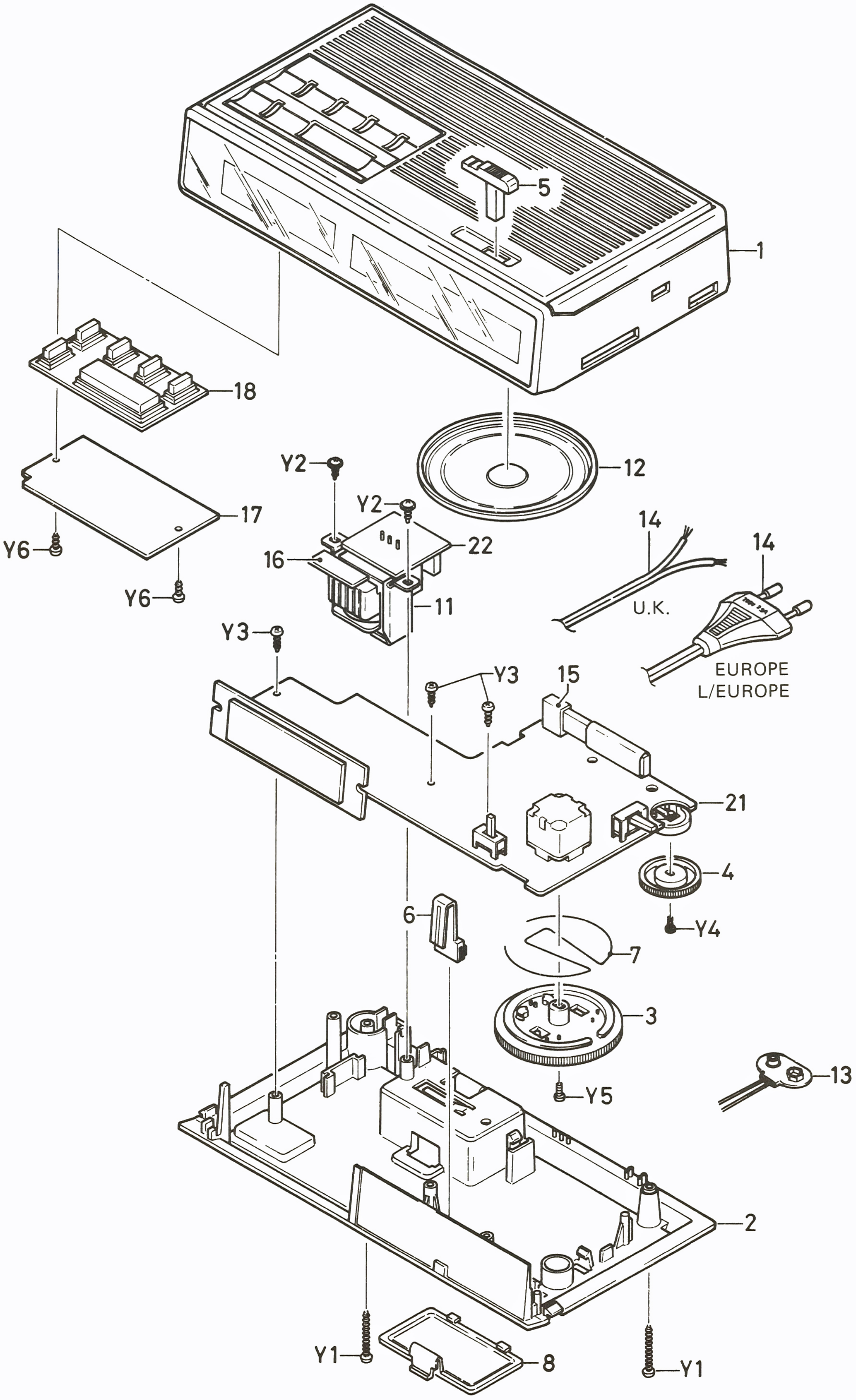
PHOTO: RM5008 (EUROPE)

SPECIFICATIONS

Frequency range	LW 150 – 285 kHz (RM5008L EUROPE)
	AM 525 – 1605 kHz (RM5008 U.K./EUROPE)
	FM 87.5 – 108 MHz (RM5008 U.K.)
	87.6 – 108 MHz (RM5008 EUROPE)
	87.6 – 108 MHz (RM5008L EUROPE)
Intermediate frequency	AM 470 kHz (RM5008 U.K.)
	460 kHz (RM5008 EUROPE/RM5008L EUROPE)
	FM 10.7 MHz
Speaker	77mm, 32 ohm
Power output	300mW (10% THD)
	AC 240V, 50Hz (RM5008 U.K.)
	AC 220V, 50Hz (RM5008 EUROPE/RM5008L EUROPE)
	Battery backup 9V DC
Dimensions	220(W) x 122(D) x 60(H) mm Approx.
Weight	600g Approx.

WM-18233

EXPLODED VIEW


5
1
18
Y2
12
Y2
17
22
14
14
Y6
16
Y6
11
U.K.
Y3
EUROPE
L/EUROPE
Y3
15
21
4
6
Y4
7
3
13
Y5
2
Y1
8
Y1

PARTS LIST

PRODUCT SAFETY NOTICE

Each precaution in this manual should be followed during servicing. Components identified with the IEC symbol ⚠ in the parts list and the schematic diagram designate components in which safety can be of special significance. When replacing a component identified with ⚠, use only the replacement parts designated, or parts with the same ratings of resistance, wattage or voltage that are designated in the parts list in this manual.
Leakage-current or resistance measurements must be made to determine that exposed parts are acceptably insulated from the supply circuit before returning the product to the customer.

PACKING & ACCESSORIES

Ref. No.	Part No.	Description
	141-6-145T-14400	FOAM PLASTIC CASE, LEFT
	141-6-145T-14500	FOAM PLASTIC CASE, RIGHT
	141-6-231T-30300	INNER POLYE COVER, SET
	141-6-133T-75603	INNER CORR CASE (G)
or	141-6-133T-75604	INNER CORR CASE (E)
or	141-6-133T-75605	INNER CORR CASE (L/E)
	141-6-409T-28604	INST MANUAL (G)
or	141-6-409T-28605	INST MANUAL (E,L/E)

CABINET & CHASSIS

Ref. No.	Part No.	Description
1	141-0-124T-51104	TOP LID ASSY, WHITE (G)
or	141-0-124T-51105	TOP LID ASSY, WHITE (E)
or	141-0-124T-51106	TOP LID ASSY, WHITE (L/E)
2	141-0-125T-41604	BOTTOM LID ASSY (G)
or	141-0-125T-41605	BOTTOM LID ASSY (E)
or	141-0-125T-41606	BOTTOM LID ASSY (L/E)
3	141-2-165T-07100	ROTARY KNOB, TUNING
4	141-2-163T-68901	ROTARY KNOB, VOLUME
5	141-2-164T-44200	SLIDE KNOB, FUNCTION
6	141-2-511T-31300	POINTER
7	141-2-340T-02530	ROPE 0.25X600MM
8	141-2-128T-13300	BATTERY LID

FIXING PARTS

Ref. No.	Part No.	Description
Y1	BJN2S++325+Z1	PAN HD 2 TAPPING SCREW 3X25
Y2	BJX6S++3+8+Z1	PAN WASHER HD 2 TAPPING SCREW 3X8
Y3	BJN2S++3+8+Z1	PAN HD 2 TAPPING SCREW 3X8
Y4	BJNBS1R7+5+Z1	PAN HD SCREW 1.7X5
Y5	BJNBS2R6+6+Z1	PAN HD SCREW 2.6X6
Y6	BJN2S2R6+6+Z1	PAN HD 2 TAPPING SCREW 2.6X6

ELECTRICAL PARTS

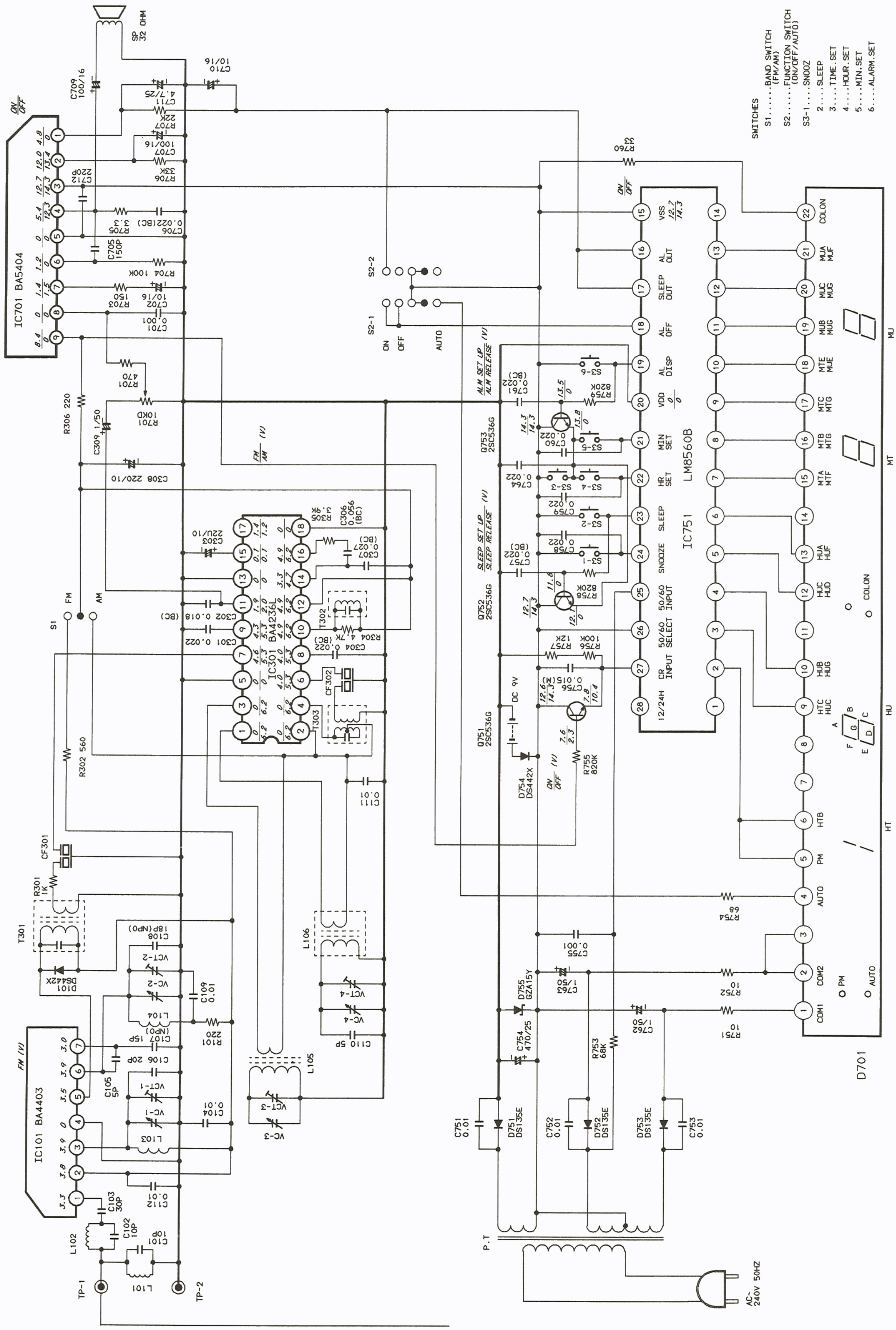
Ref. No.	Part No.	Description
11	⚠ 4-320T-14600	P.T (G)
or	⚠ 4-320T-21700	P.T (E,L/E)
12	4-151T-50000	SPEAKER 32 OHM
or	4-151T-60200	SPEAKER 32 OHM
13	4-243R-02191	BATT LEAD
14	⚠ 4-243T-84973	POWER CORD (E,L/E)
or	⚠ 4-243T-85273	POWER CORD (G)
15	124-2-369S-00200	BRACKET COIL
16	⚠ 4-285T-54500	P.C BOARD, POWER SUPPLY
17	⚠ 4-285T-66900	P.C BOARD, SOFT TOUCH SW
18	4-248T-12600	KEY BOARD SWITCH, S3

MAIN P.C.B. ASSY

Ref. No.	Part No.	Description
21	141–4–285T–54403	P.C BOARD ASSY, MAIN (G)
or	141–4–285T–54404	P.C BOARD ASSY, MAIN (E)
or	141–4–285T–54405	P.C BOARD ASSY, MAIN (L/E)
	141–2–430T–00600	EYELET, FOR VR
	4–236T–16771	PLUG, FOR LED
VC1～4,	4–224T–21900	V.C
VCT1～4	4–224T–21900	V.C
CT1,2	4–224T–15471	TRIMMER 30PF (L/E)
T301	4–256T–38910	I.F.T, FM "V" CURVE
T302	4–256T–28410	I.F.T, FM "S" CURVE
T303	4–256T–22910	I.F.T, AM (G,E)
or	4–256T–26710	I.F.T, LW (L/E)
L101	4–265R–12610	VHF COIL
L102	4–265R–00410	VHF COIL
L103	4–265T–02710	VHF COIL, FM ANT
L104	4–265R–10510	VHF COIL, FM OSC (G)
or	4–265T–51310	VHF COIL, FM OSC (E,L/E)
L105	4–257T–66500	ANT COIL, AM ANT (G,E)
or	4–257T–76200	ANT COIL, AM ANT (L/E)
L106	4–258T–31610	OSC COIL, AM OSC (G)
or	4–258T–49810	OSC COIL, LW OSC (L/E)
or	4–258T–60010	OSC COIL, AM OSC (E)
or	4–258T–60012	OSC COIL, AM OSC (E)
CF301	4–256T–80400	I.F FILTER 10.70MHZ RED
or	4–256T–80471	I.F FILTER 10.67MHZ BLUE
or	4–256T–80472	I.F FILTER 10.73MHZ ORANGE
or	4–256T–80473	I.F FILTER 10.64MHZ BLACK
or	4–256T–80474	I.F FILTER 10.76MHZ WHITE
CF302	4–256T–81171	I.F FILTER 460KHZ (E)
or	4–256T–81172	I.F FILTER 470KHZ (G)
or	4–256T–83371	I.F FILTER 460KHZ (L/E)
S1	4–248T–17200	SWITCH, BAND SELECT
S2	4–238T–57371	SWITCH, FUNCTION
VR701	4–222T–43900	VARIAVLE RESISTOR 10KD
TP1～4	4–237T–00171	TERMINAL BOARD
IC101	SIBA4403+++++	IC BA4403 SIP7
IC301	SIBA4236L++++	IC BA4236L DSI18
IC701	SIBA5404+++++	IC BA5404 SIP9
IC751	SILM8560B++++	IC LM8560B DIP28
Q751	STC536+G+++U+	TR 2SC536 G AUD
Q752	STC536+G+++U+	TR 2SC536 G AUD
Q753	STC536+G+++U+	TR 2SC536 G AUD
D101	SDDS442+X++++	DIODE DS442 X
or	SD1N4148++++T	DIODE 1N4148
D701	SLSL2042++I++	LED SL2042 12H, CLOK (G)
or	SLSL2042++T++	LED SL2042 24H, CLOK (E,L/E)
D751	SDDS135+E++++	DIODE DS135 E
or	SD1N4003+++++	DIODE 1N4003
D752	SDDS135+E++++	DIODE DS135 E
or	SD1N4003+++++	DIODE 1N4003
D753	SDDS135+E++++	DIODE DS135 E
or	SD1N4003+++++	DIODE 1N4003
D754	SDDS442+X++++	DIODE DS442 X
or	SD1N4148++++T	DIODE 1N4148
D755	SDGZA150Y++++	ZENER DIODE GZA15Y

SCHEMATIC DIAGRAM

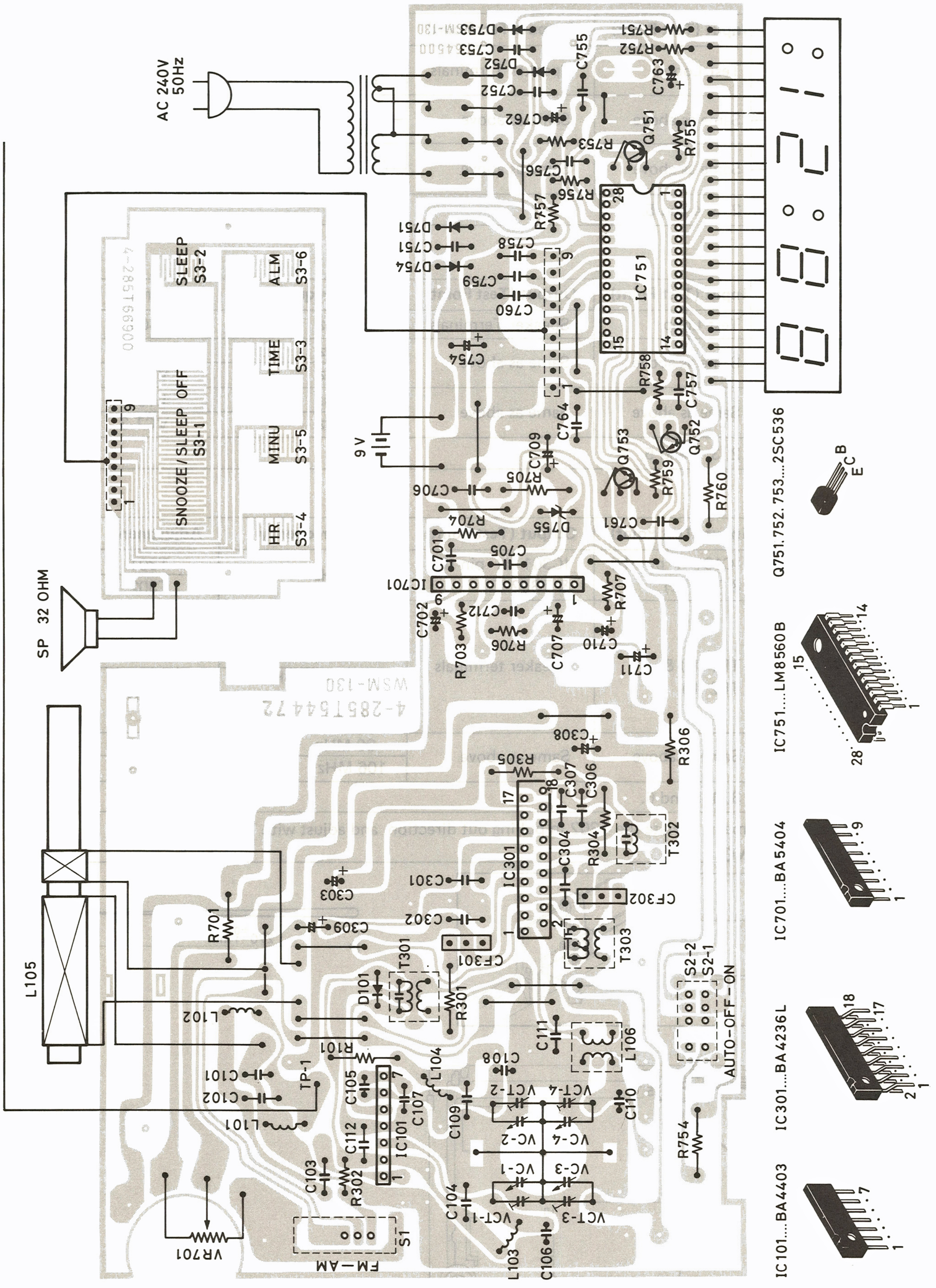
for U.K.



SWITCHES
S1......BAND SWITCH (FM/AM)
S2......FUNCTION SWITCH (ON/OFF/AUTO)
S3-1....SNOOZ
2....SLEEP
3....TIME.SET
4....HOUR.SET
5....MIN.SET
6....ALARM.SET
IC701 BA5404
IC301 BA4236L
IC101 BA4403
IC751 LM8560B
D701
SP 32 OHM
C709 100/16
C710 10/16
C711 4.7/25
R707 22K
C707 100/16
R706 33K
C712 220P
R705 3.3
C706 0.022(BC)
C705 150P
R704 100K
R703 150
C702 10/16
C701 0.001
R701 470
R701 10KD
R306 220
C309 1/50
C308 220/10
R305 3.9K
C306 0.056 (BC)
C303 22U/10
C307 0.027 (BC)
C302 0.018 (BC)
C301 0.022
R304 4.7K
C304 0.022 (BC)
T302
CF302
T303
C111 0.01
R302 560
S1
FM
AM
FM/AM (V)
CF301
R301 1K
T301
D101 DS442X
C108 18P(NPO)
VCT-2
VC-2
C109 0.01
L104
C107 15P (NPO)
R101 220
C106 20P
C105 5P
VCT-1
VC-1
C104 0.01
L103
C112 0.01
C103 30P
C102 10P
C101 10P
L102
L101
TP-1
TP-2
FM (V)
L106
VCT-4
VC-4
C110 5P
L105
VCT-3
VC-3
S2-2
S2-1
ON
OFF
AUTO
ON/OFF
ALM SET UP (V)
ALM RELEASE
SLEEP SET UP (V)
SLEEP RELEASE
R760 33
C761 0.022 (BC)
R759 820K
Q753 2SC536G
C760 0.022
S3-6
S3-5
S3-4
S3-3
S3-2
S3-1
C764 0.022
C759 0.022
C758 0.022
C757 0.022 (BC)
Q752 2SC536G
R758 820K
R757 12K
R756 100K
C756 0.015(Z)
Q751 2SC536G
DC 9V
D754 DS442X
ON/OFF (V)
R755 820K
VSS
AL OUT
SLEEP OUT
AL OFF
AL DISP
VDD
MIN SET
HR SET
SLEEP
SNOOZE
50/60 INPUT
50/60 SELECT
CR INPUT
12/24H
COLON
MUA MUF
MUC MUG
MUB MUG
MTE MUE
MTC MTG
MTB MTG
MTA MTF
HUA HUF
HUC HUD
HUB HUG
HTC HUC
HTB
PM
AUTO
COM2
COM1
MU
MT
HU
HT
R754 68
C755 0.001
R752 10
R751 10
C763 1/50
D755 GZA15Y
C754 470/25
R753 68K
C762 1/50
C751 0.01
D751 DS135E
C752 0.01
D752 DS135E
D753 DS135E
C753 0.01
P.T
AC-240V 50HZ

WIRING DIAGRAM

for U.K.


AC 240V 50Hz
SP 32 OHM
9 V
L105
L101
L102
L103
L104
L106
R101
C101
C102
C103
C104
C105
C106
C107
C108
C109
C110
C111
C112
TP-1
IC101
D101
T301
T302
T303
CF301
CF302
IC301
R301
R302
R304
R305
R306
C301
C302
C303
C304
C306
C307
C308
C309
VCT-1
VCT-2
VCT-3
VCT-4
VC-1
VC-2
VC-3
VC-4
S1
FM-AM
VR701
S2-1
S2-2
AUTO-OFF-ON
R754
R701
IC701
R703
R704
R705
R706
R707
C701
C702
C705
C706
C707
C709
C710
C711
C712
D755
C761
R760
R759
Q753
Q752
C764
R758
C757
C754
C760
C759
C758
D751
C751
D754
R757
R756
C756
R753
Q751
R755
C762
C752
D752
C753
D753
C755
C763
R751
R752
IC751
SNOOZE/SLEEP OFF S3-1
SLEEP S3-2
TIME S3-3
HR S3-4
MINU S3-5
ALM S3-6
4-285T6690 0
4-285T544 72
WSM-130
Q751.752.753....2SC536
B
C
E
IC751....LM8560B
IC701....BA5404
IC301....BA4236L
IC101....BA4403

ADJUSTMENT OF TUNER

Europe, U.K. Set the DC12V, Speaker Impedance is 32 ohms. Standard output: 50mV (1.26V)

Step	AM Band		Input (Test Point)	Output (Test Point)	SG Frequency	Adjustment	Note
1	I.F		Test Loop	Speaker Terminals	460kHz (Europe) 470kHz (U.K.)	T303	
2	OSC	LOW	Same as above	Same as above	517kHz	L106	
3		HIGH			1650kHz	VCT-4	
4	ANT.	LOW	Same as above	Same as above	600kHz	L105	
5		HIGH			1400kHz	VCT-3	
6	Repeat adjustment 2, 3, 4 and 5.						

L/Europe

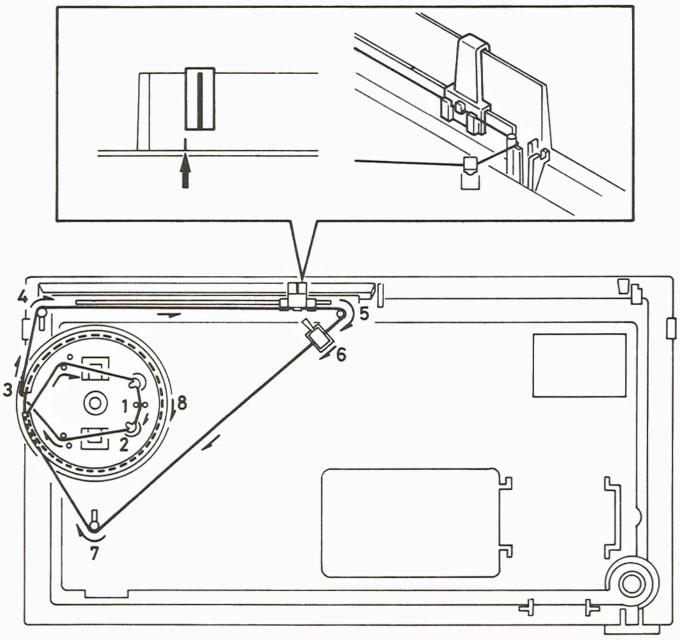
Step	LW Band		Input (Test Point)	Output (Test Point)	SG Frequency	Adjustment	Note
1	I.F		Test Loop	Speaker Terminals	460kHz	T303	
2	OSC	LOW	Same as above	Same as above	145kHz	L106	
3		HIGH			295kHz	VCT-4	
4	ANT.	LOW	Same as above	Same as above	160kHz	L105	
5		HIGH			280kHz	VCT-3	
6	Repeat adjustment 2, 3, 4 and 5.						

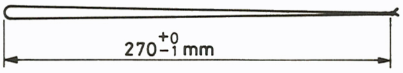
Europe, L/Europe, U.K.

Step	FM Band		Input (Test Point)	Output (Test Point)	SG Frequency	Adjustment	Note
1	I.F	"V" curve	IC101 1 pin (H) & TP2 (E)	IC301 11 pin (H) & T302 (E)	10.7 MHz	T301	
2		"S" curve				T302	
3	OSC	LOW	TP1 (H) & TP2 (E)	Speaker terminals	87.4+0.1–0.15 MHz (Europe, L/Europe) 87 MHz (U.K.)	L104	
4		HIGH			108.5 ±0.3 MHz (Europe, L/Europe) 109 MHz (U.K.)	VCT-2	
5	ANT	LOW	Same as above	Same as above	90 MHz	L103	
6		HIGH			106 MHz	VCT-1	
7	Repeat adjustment 3, 4, 5 and 6.						

* For V curve adjustment, deviate the T302 in pulling out direction, and adjust with T301.

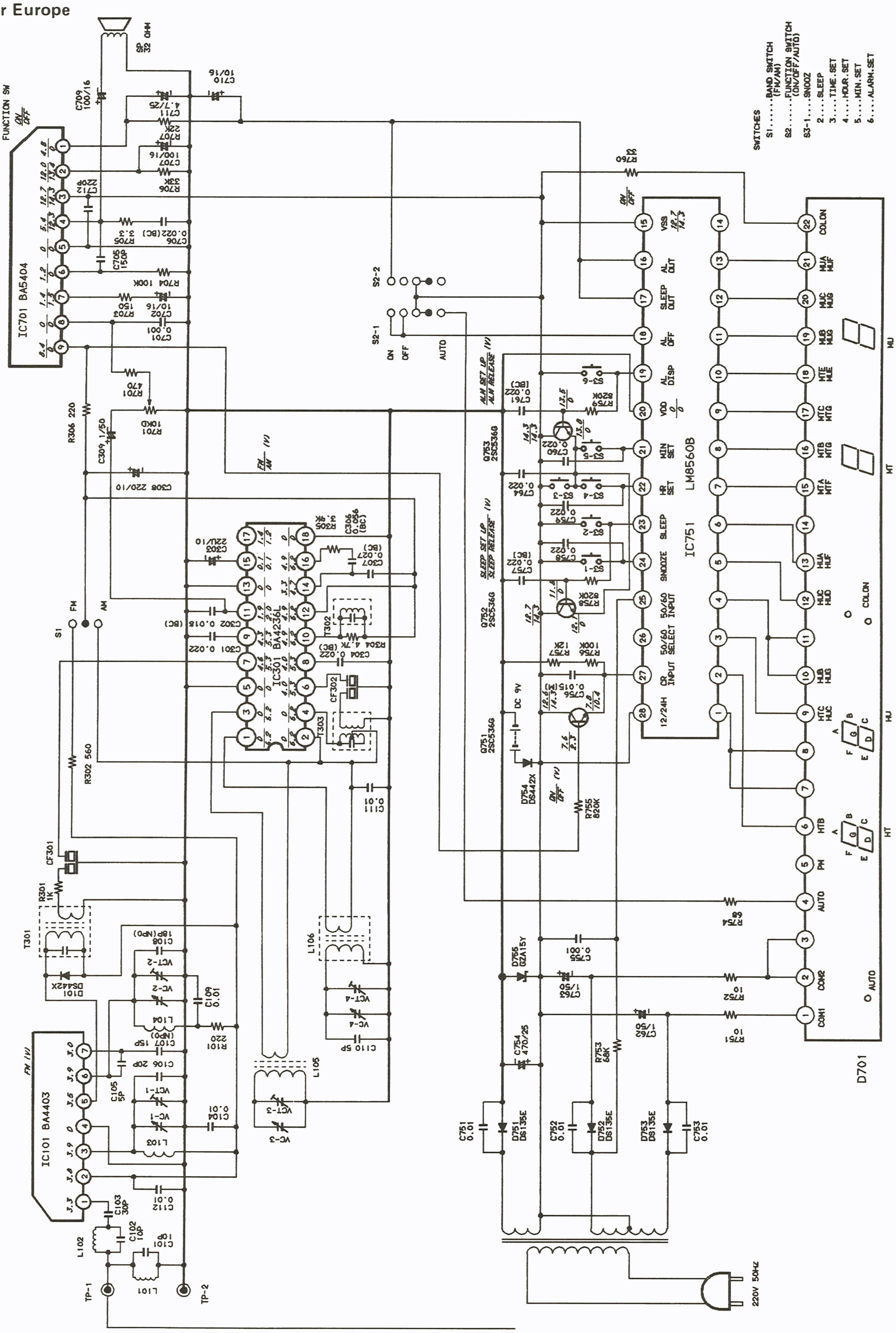
DIAL CORD STRINGING





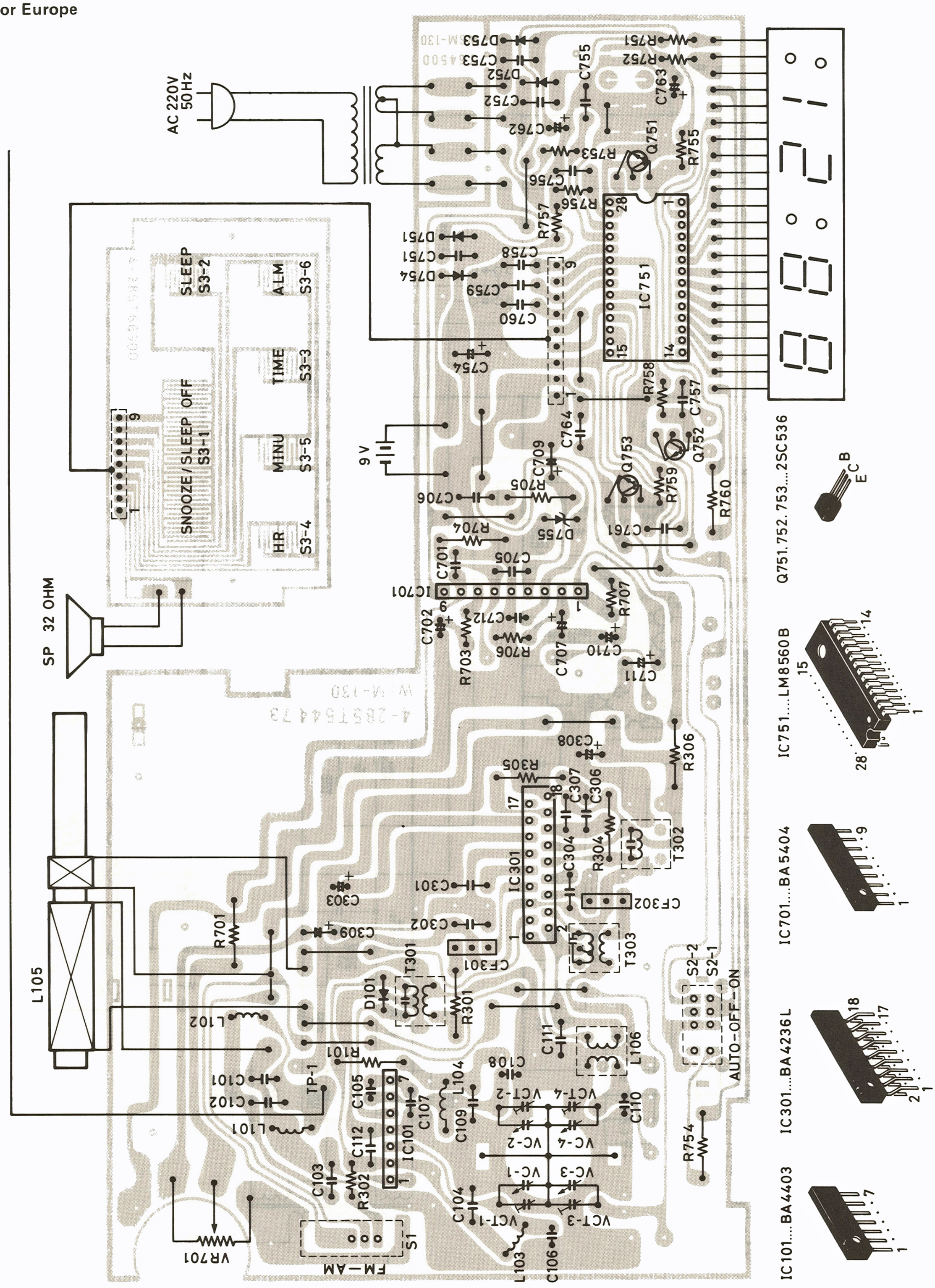
SCHEMATIC DIAGRAM

for Europe


SP 32 OHM
FUNCTION SW ON/OFF
IC701 BA5404
C709 100/16
C710 10/16
C711 4.7/25
R707 22K
C707 100/16
R706 33K
C712 220P
C706 0.022(BC)
R705 3.3
C705 150P
R704 100K
C702 10/16
R703 150
C701 0.001
R701 470
R701 10KΩ
R306 220
C309 1/50
C308 220/10
FM/AM (V)
IC301 BA4236L
C303 22U/10
R305 4.9K
C306 0.056 (BC)
C307 0.027 (BC)
T302
R304 4.7K
C302 0.018 (BC)
C301 0.022
C304 0.022 (BC)
CF302
T303
C111 0.01
S1 FM AM
R302 560
CF301
R301 1K
T301
D101 DS442X
C108 18P(NPO)
VCT-2
VC-2
C109 0.01
L104
R101 220
C107 15P (NPO)
C106 20P
C105 5P
VCT-1
VC-1
C104 0.01
L103
IC101 BA4403
FM (V)
C103 30P
C102 10P
C101 10P
C112 0.01
L102
L101
TP-1
TP-2
L106
VCT-4
VC-4
C110 5P
L105
VCT-3
VC-3
S2-2
S2-1
ON OFF AUTO
ALM SET UP / ALM RELEASE (V)
SLEEP SET UP / SLEEP RELEASE (V)
C761 0.022 (BC)
Q753 2SC536G
C760 0.022
R759 820K
S3-6 S3-5 S3-4 S3-3 S3-2 S3-1
C764 0.022
C759 0.022
C758 0.022
C757 0.022 (BC)
Q752 2SC536G
R758 820K
R757 12K
R756 100K
C756 0.015(M)
Q751 2SC536G
DC 9V
D754 DS442X
ON/OFF (V)
R755 820K
R760 33
IC751 LM8560B
VSS AL OUT SLEEP OUT AL OFF AL DISP VDD MIN SET HR SET SLEEP SNOOZE 50/60 INPUT 50/60 SELECT CR INPUT 12/24H
D701
COLON HUA HUF HUC HUG HUB HUG HTE HUE HTC HTG HTB HTG HTA HTF HUA HUF HUC HUD HUB HUG HTC HUC HTB PM AUTO COM2 COM1
HU HT
R754 68
D755 GZA15Y
C755 0.001
C763 1/50
R752 10
C762 1/50
R751 10
C754 470/25
R753 68K
C751 0.01
D751 DS135E
C752 0.01
D752 DS135E
D753 DS135E
C753 0.01
220V 50Hz
SWITCHES
S1.....BAND SWITCH (FM/AM)
S2.....FUNCTION SWITCH (ON/OFF/AUTO)
S3-1.....SNOOZ
2.....SLEEP
3.....TIME.SET
4.....HOUR.SET
5.....MIN.SET
6.....ALARM.SET

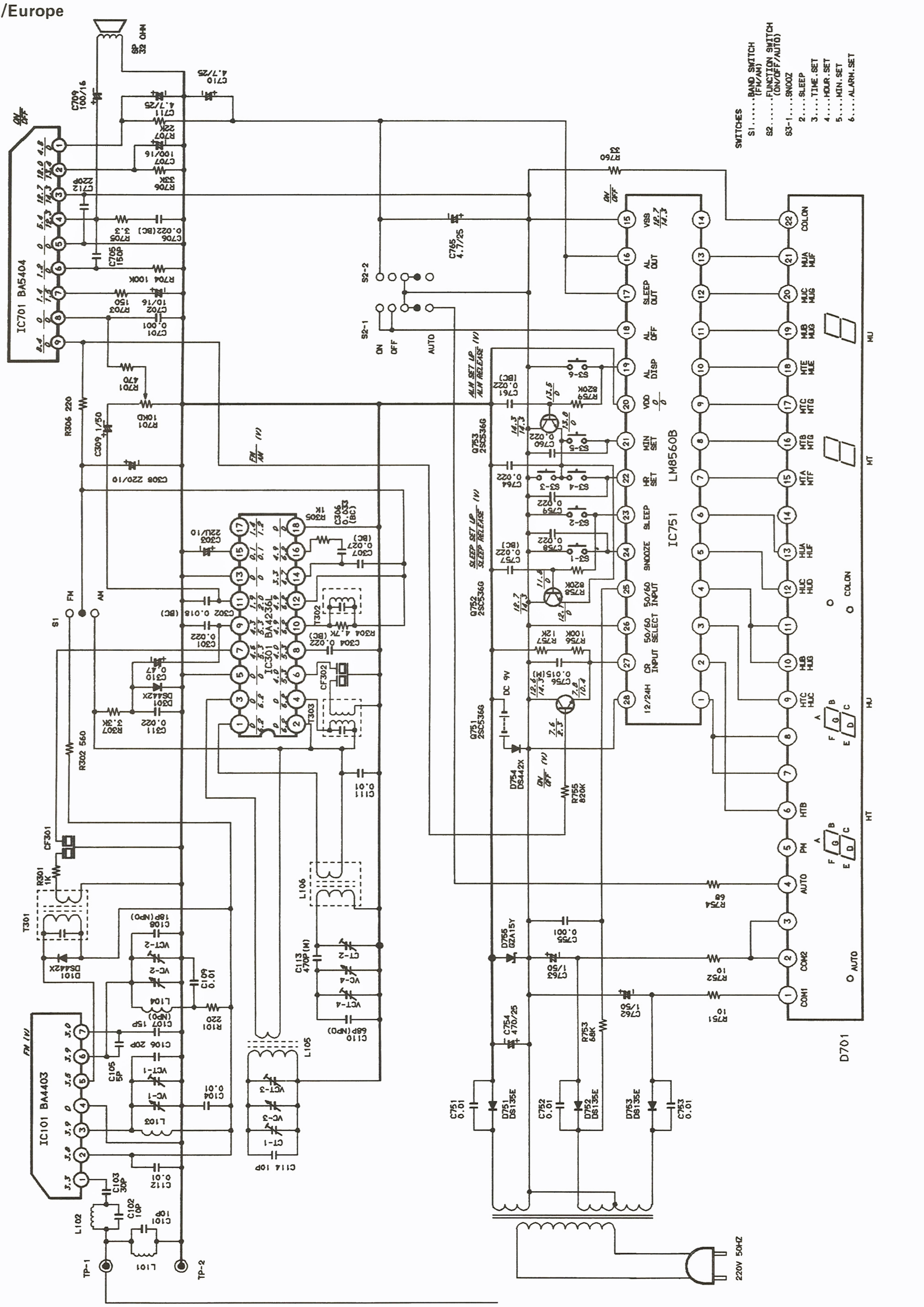
WIRING DIAGRAM

for Europe


AC 220V 50Hz
SP 32 OHM
L105
9 V
SNOOZE/SLEEP OFF S3-1
SLEEP S3-2
TIME S3-3
HR S3-4
MINU S3-5
ALM S3-6
IC751
IC701
IC301
IC101
Q751
Q752
Q753
D751
D752
D753
D754
D755
D101
R751
R752
R753
R755
R756
R757
R758
R759
R760
R754
R701
R703
R704
R705
R706
R707
R301
R302
R304
R305
R306
R101
C751
C752
C753
C755
C756
C757
C758
C759
C760
C761
C762
C763
C764
C754
C701
C702
C705
C706
C707
C709
C710
C711
C712
C301
C302
C303
C304
C306
C307
C308
C309
C101
C102
C103
C104
C105
C106
C107
C108
C109
C110
C111
C112
CF301
CF302
T301
T302
T303
L101
L102
L103
L104
L106
TP-1
VC-1
VC-2
VC-3
VC-4
VCT-1
VCT-2
VCT-3
VCT-4
VR701
FM-AM
S1
S2-1
S2-2
AUTO-OFF-ON
WSM-130
4-285T544 73
Q751.752.753....2SC536
B
C
E
IC751....LM8560B
IC701....BA5404
IC301....BA4236L
IC101....BA4403
1
7
9
14
15
17
18
28

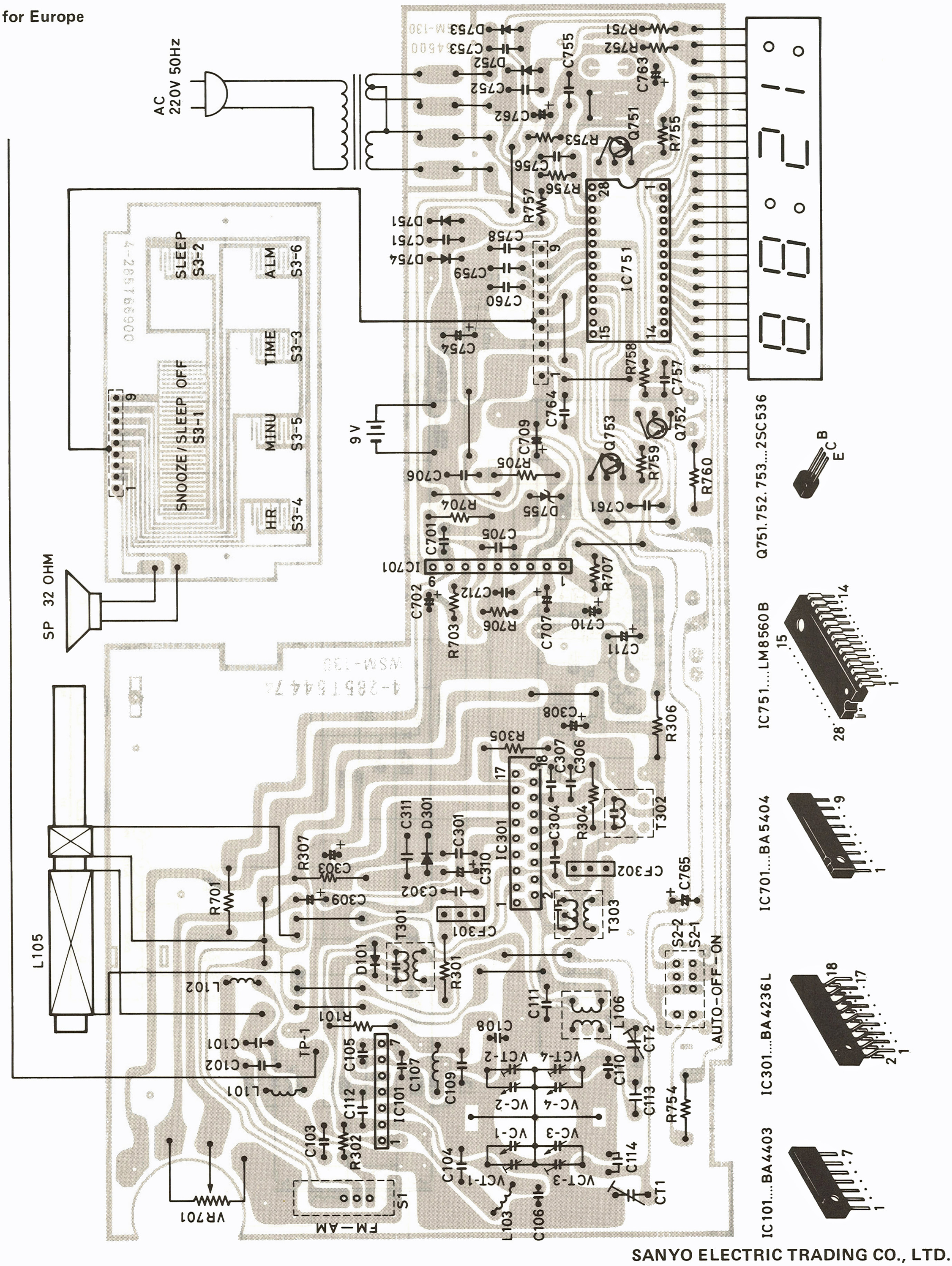
SCHEMATIC DIAGRAM

for L/Europe


SWITCHES
S1.......BAND SWITCH (FM/AM)
S2.......FUNCTION SWITCH (ON/OFF/AUTO)
S3-1.....SNOOZ
2.....SLEEP
3.....TIME.SET
4.....HOUR.SET
5.....MIN.SET
6.....ALARM.SET
IC701 BA5404
IC301 BA4236L
IC101 BA4403
IC751 LM8560B
D701
SP 32 OHM
ON OFF
C709 100/16
C710 4.7/25
C711 4.7/25
R707 22K
C707 100/16
R706 33K
C712 220P
R705 3.3
C706 0.022(BC)
C705 150P
R704 100K
R703 150
C702 10/16
C701 0.001
R701 470
VR701 10KD
R306 220
C309 1/50
C308 220/10
FM AM (V)
C306 0.033 (BC)
R305 1K
C303 22U/10
C307 0.027 (BC)
C302 0.018 (BC)
T302
R304 4.7K
C304 0.022 (BC)
C301 0.022
CF302
C310 0.47
D301 DS442X
R307 3.3K
C311 0.022
T303
S1 FM AM
R302 560
C111 0.01
CF301
R301 1K
T301
L106
C108 18P(NPO)
VCT-2
VC-2
D101 DS442X
C109 0.01
C113 470P(M)
CT-2
VC-4
VCT-4
L104
C107 15P (NPO)
R101 220
C110 68P(NPO)
L105
FM (V)
C106 20P
C105 5P
VCT-1
VC-1
C104 0.01
L103
VCT-3
VC-3
CT-1
C114 10P
C112 0.01
C103 30P
L102
C102 10P
C101 10P
L101
TP-1
TP-2
S2-2
S2-1
ON
OFF
AUTO
C765 4.7/25
R760 1K
ALM SET UP ALM RELEASE (V)
C761 0.022 (BC)
R759 820K
S3-6
Q753 2SC536G
C760 0.022
S3-5
C764 0.022
S3-3
S3-4
C759 0.022
S3-2
SLEEP SET UP SLEEP RELEASE (V)
C757 0.022 (BC)
C758 0.022
S3-1
Q752 2SC536G
R758 820K
R757 12K
R756 100K
C756 0.015 (M)
Q751 2SC536G
DC 9V
D754 DS442X
R755 820K
VSS
AL OUT
SLEEP OUT
AL OFF
AL DISP
VDD
MIN SET
HR SET
SLEEP
SNOOZE
50/60 INPUT
50/60 SELECT
CR INPUT
12/24H
COLON
MUA MUF
MUC MUG
MUB MUG
MTE MUE
MTC MTG
MTB MTG
MTA MTF
MUA MUF
MUC MUD
MUB MUG
HTC HUC
HTB
PM
AUTO
COM2
COM1
MU
MT
HU
HT
R754 68
D755 GZA15Y
C755 0.001
C763 1/50
R752 10
C762 1/50
R751 10
C754 470/25
R753 68K
C751 0.01
D751 DS135E
C752 0.01
D752 DS135E
D753 DS135E
C753 0.01
220V 50HZ

WIRING DIAGRAM

for Europe


AC 220V 50Hz
SP 32 OHM
9 V
L105
VR701
FM—AM
S1
SNOOZE/SLEEP OFF S3-1
SLEEP S3-2
TIME S3-3
HR S3-4
MINU S3-5
ALM S3-6
4-285T66900
4-285T54474
WSM-130
IC751
IC701
IC301
IC101
Q751
Q752
Q753
T301
T302
T303
CF301
CF302
L101
L102
L103
L106
TP-1
CT1
CT2
VC-1
VC-2
VC-3
VC-4
VCT-1
VCT-2
VCT-3
VCT-4
AUTO-OFF-ON
S2-1
S2-2
Q751.752.753....2SC536
E
C
B
IC751....LM8560B
IC701....BA5404
IC301....BA4236L
IC101....BA4403

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